UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

April 21, 2006

Reply to
Attn Of: OWW-131

Lynn J. Tomich Kent
Director, Division of Water
Alaska Department of Environmental Conservation
555 Cordova Street
Anchorage, AK 99501

Re: EPA Review of the Main Stem Red Dog Creek Site-Specific Criterion for Total Dissolved Solids for the Arctic Grayling spawning period

Dear Ms. Kent:

The Environmental Protection Agency (EPA) has completed its review of the site-specific criteria (SSC) revisions to Alaska's aquatic life criterion for total dissolved solids (TDS) for mainstem Red Dog Creek received by EPA on February 2, 2006. Our review was conducted pursuant to our authority under Section 303(c) of the Clean Water Act and the implementing regulations at 40 CFR 131.5 and 131.21. The purpose of this letter is to inform you of our decision. In accordance with our authorities, EPA approves the 1,500 mg/l TDS SSC for mainstem Red Dog Creek during the Arctic grayling spawning period.

On June 11, 2003 the Alaska Department of Environmental Conservation (ADEC) submitted two SSC for TDS for Red Dog Creek: 1,500 mg/L TDS when Arctic grayling are not spawning and 500 mg/L during Arctic grayling spawning. EPA approved the 1,500 mg/L on July 16, 2003 and took no action, on the 500 mg/l TDS SSC. At the time of the submittal, the Alaska Science and Technology Foundation (ASTF) released a study, *Salmon as a Bioassay Model of Effects of Total Dissolved Solids*, that provided clear evidence that TDS in the composition similar to that present in the Red Dog Mine effluent has impacts on fertilization success in salmonids. It also demonstrated that these effects vary widely from species to species, and that it is not possible to extrapolate the results of one species to another. Therefore, EPA sent a 308 Information Request to Teck Cominco that required tests to be performed to determine the effects of TDS on the spawning success of Arctic grayling The results from these tests are the basis for this new TDS SSC applicable during the Arctic grayling spawning period on Red Dog Creek.

The February 2, 2006 submittal from ADEC officially withdrew the 2003 500 mg/L TDS SSC to protect Arctic grayling spawning. This new TDS SSC replaces the 2003 Arctic grayling spawning value and thus no further action is required by EPA for the 2003 TDS submittal.

This SSC was submitted to EPA by ADEC on January 30, 2006 and was received by EPA on February 2, 2006. In accordance with EPA's regulations at 40 CFR 131.6, the Alaska water quality standards revisions submittal package contained: a copy of the final regulation at 18AAC 70.236(b)(5), the adoption order, the Lt. Governor's certification that the revision to 18 AAC

70.236(b) were duly adopted in accordance with State law, the specific change to the regulatory language at 18 AAC 70.236(b), the decision document that presents the technical justification that demonstrates that the TDS SSC will protect designated uses, and the response to comments received during the public comment period.

Modification of numeric criteria for toxic pollutants to reflect site-specific conditions is allowed by Federal regulation at 40 CFR 131.11(b)(1)(ii). The Alaska Water Quality Standards (WQS) regulations at 18 AAC 70.235 allow for the development of SSC. This TDS SSC is established in accordance with 18 AAC 70.235(a) and (c-e) which identifies the process that Alaska must follow to establish a SSC and the determinations that must be made by the State. The technical information submitted to EPA in support of this TDS SSC demonstrates that the 1,500 mg/l TDS SSC is scientifically defensible, the SSC will protect all designated uses, and Alaska has completed a public participation process.

Section 7 of the Endangered Species Act (ESA) requires Federal agencies to consult with the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NOAA-Fisheries) regarding potential effects that an action may have on proposed and listed threatened and endangered species. EPA requested a listing of threatened and endangered species in the vicinity of the Red Dog Mine site from the FWS (EPA letter dated August 26, 2005) and from NOAA-Fisheries (EPA letter dated August 26, 2005) for the re-issuance of the National Pollutant Discharge Elimination System permit (which proposes to include this TDS SSC). The FWS responded on September 21, 2005 and stated that there are no threatened or endangered species under their jurisdiction in the vicinity of the mine site and further consultation was not necessary. NOAA-Fisheries responded on September 28, 2005 stating that there are no threatened or endangered species under their jurisdiction in the area. Therefore, this action will not affect listed threatened or endangered species and no additional consultation under ESA is required.

Similarly, the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires federal agencies to consult with NOAA-Fisheries on any actions authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH) identified by Regional Fishery Management Councils. NOAA-Fisheries stated that "the described action will not result in any adverse effect to Essential Fish Habitat (EFH). No EFH Assessment is required and NMFS does not offer any EFH Conservation Recommendations. Further EFH consultation is not necessary. NMFS has no objection to the project" (email dated March 27, 2006). Therefore, no further EFH consultation is required.

We greatly appreciate the efforts of your staff to coordinate this action with EPA throughout the SSC development process. Please feel free to contact me at (206) 553-7151 or if you have any questions concerning this letter please contact Sally Brough, Water Quality Standards Coordinator, at (206) 553-1295.

Sincerely,

/s/
Michael F. Gearheard
Director, Office of Water and Watersheds

cc: Nancy Sonafrank, ADEC – Water/ Fairbanks
Pete McGee, ADEC- Water/Fairbanks